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Introductory address.

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THOMAS ANTISELL, M.D.,
PROFESSOR MILITARY SURGERY, PHYSIOLOGY, AND HYGIENE.

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CORRESPONDENCE.

WASHINGTON, D. C.,

December 12, 1865.

SIR: In obedience to instructions from our fellow-students, we have the honor to respectfully ask, for publication, a copy of the able and eloquent address delivered by you before the Medical Department of Georgetown College, at the opening of the present session.

We are, sir, very respectfully, your obedient servants,

ALGERNON M. SQUIER,
SAM HOUSTON,
S. A. AMERY,

Committee.

THOMAS ANTISELL, M. D., *Prof. Military Surgery, Physiology, &c.,*
Medical Department, Georgetown College, Georgetown, D. C.

GEORGETOWN, D. C.,

December 14, 1865.

GENTLEMEN: In reply to your communication, I herewith forward you the address delivered at the opening of the sixteenth session of the Medical Department of Georgetown College, and desire, at the same time, to express my sense of the high estimate placed by you upon it, and of the compliment conferred by its publication.

I remain, gentlemen, very respectfully,

THOMAS ANTISELL.

Messrs. A. M. SQUIER, SAM HOUSTON, S. A. AMERY,

Committee.

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ADDRESS.

GENTLEMEN: In accordance with a time-honored custom observed in this, as in most other schools, a lecture introductory to the regular courses of the session has, for some years, been delivered, and the faculty have selected me to represent them on this occasion—to hail your advent, and to express for them the sentiments fitting on such an event.

To some of you, to those who have now presented themselves for the first time in a school of medicine, this act is to form an epoch in your career, an act which opens to your senses new views of man and nature, and implants in your mind newer and nobler ideas of the relation and interconnection of the organic world, which will ultimately lead you to reject and despise the narrow prejudices, both of ignorance and education, which lurk around and waylay the non-medical mind. To others of you it is but the renewal of intercourse with your professors, the commencement of a new term which will perhaps terminate your labors as a student, and your relations with us.

A pleasing sight is it, the gathering of young men on the seats and benches when the cool winds of October begin to reach us. Brimfull of health and hope, in abundant spirits, revelling in an energy and freshness which only an untried life can bring, you have met here to be mustered into the professional corps in which fate makes every year sad vacancies.

To those of us, seniors, who can readily look back upon a similar scene, and recollect ourselves as we were under like circumstances, how many associations are called up by the retrospect; and with all the doubts and difficulties which a contest with the world will necessarily entail on you, as it did on us, we still can almost envy you the period on which you are entering, and the feelings which are interwoven therewith.

We greet the new beginners; those who have just taken the first step upwards in life into a responsible position in which the lives of others are entrusted to their hands—those to whom medicine is as yet hidden, vague and mysterious, and who are looking, as it were, with strained eyes before a

curtain which is to be raised before they can behold the penetralia of human life and human suffering.

We cordially welcome back the well-known faces—the pupils of the past season—we rejoice to see them as evidences that there still lurks in the American heart—the busiest and most practical heart in the world—enough of disinterestedness, enough of the aspiration after goodness and truth, guiding young men to continue in the choice of that path of life which, to the majority, is neither a rapid nor a direct road to riches or to fame; and we are not less proud to see them as a token of satisfaction among them at instruction received, and as a tacit acknowledgment that we, as teachers, have endeavored to perform our duty toward them.

Before another introductory address shall have been given from this place, many of you will have ceased to be students; you will have been qualified to practice, and you will take your allotted place in the existing profession; your standing there will mainly depend upon yourselves. The education which will have been presented to you is such as to fit you for associating with the highest in the profession, and you should not find yourself out of place even high up in the ranks. All the collateral branches of medicine, which many of you may now think superfluous, are those which will hereafter give you the ascendant over the multitude in the profession, and for the possession of which you will be looked up to afterwards. If you have neglected these acquirements, there is no sanctuary for you in our profession which will shelter you; the art is gradually elevating itself in public estimation, and, as one of its practitioners, you will take your position in accordance; and if the station be not such as you expected, recollect that if you have neglected to honor your calling, you must not suppose it will honor you or bring itself down to your level by placing you in the first rank.

I shall leave to each professor the delivery of such information as may best guide the junior student toward the path which he can most advantageously pursue during his attendance here, and will occupy the present occasion by a few observations on matters which interest the profession at large.

It is now just one hundred years since the first medical school was opened on this continent, in the city of Philadelphia, and on the centenary of such an event it may not be inappropriate, not only to review in brief the progress which has been made in medical science at large, but also

to ascertain what share in such advance has been contributed by us within that time. It would be but natural to expect that the boldness and the energy which characterize the American mind, and its impatience of restraint, should be reflected in medicine as in other walks of life.

Private teachers have always preceded the opening of schools, and wherever in our large cities a medical college was originally established, there, previously, a teacher of anatomy generally had for some years held classes, where attended those who wished to perfect themselves in dissection, which they could not pursue under the care of a private physician.

Dr. Wm. Shippen, of Philadelphia, was one of these. Having studied with a private practitioner, he proceeded to Europe in 1760, to complete his medical education. On his return, in 1762, he formed a private class, which was tolerably successful; and having, while absent, acquired the friendship of Dr. John Morgan, who had been educated at New Jersey, although a native of Philadelphia, they originated the idea (while in Europe) of establishing a medical school in Philadelphia, and on the return of Dr. Morgan, in 1765, opened the first public classes of the medical department placed under the auspices of the trustees of the College of Philadelphia. Thus, on the 30th of May, 1765, was inaugurated the fame and the fortunes of the Medical School of Philadelphia, which, as a focus of medical learning, has held its position supreme and unmoved from the time of its origin to the commencement of our present civil war.

Nearly three years after the establishment of the school at Philadelphia, the emulative spirit of New York city led to the formation, in 1767, of another school, in connection with King's College, as it was then called, with a corps of professors, six in number, of whom, perhaps, Dr. Samuel Bard is best known to fame.

The colleges of these two cities, the earliest formed in the country, have still held the first rank among American schools; arising, perhaps, out of the circumstance that they were commenced in the most populous cities, the centres of intelligence, where the most active and best educated minds of the profession can be found to occupy the position of teacher, as an introduction to the wider fame of a consulting physician. Medical schools should only exist in cities, where alone proper facilities for teaching exist. The medical colleges in remote places in the interior of States cannot do justice to their classes, unless largely endowed by State funds.

It might be supposed in a country which prizes education, that the art of healing would share in the general care and patronage which a State bestows: but this is an error. The State cares not for medical progress—the literary colleges and universities dislike the proximity of medical schools—but medicine is justified of her children, and no where on this continent can be pointed a medical school or college founded under any other auspices than that of the learned and intelligent physicians of the locality.

From the earliest experiments of Shippen and Morgan to the latest school of our time, as a profession we have had to form and support our own institutions, and the only value of the connection with a literary college has been the license to grant degrees; a power, I think, neither necessary nor beneficial to the schools of medicine. When the true interests of medicine are better understood, I am of opinion that medical schools will not be occupied with licensing, but simply with teaching medicine, and the student, on the other hand, will not look for a barren parchment of Doctor in Medicine, but seek from appropriate quarters, after a rigid examination from disinterested hands, a certificate of being qualified to practice medicine.

Of the rival institutions alluded to, the supremacy during the first and second quarter of this century has been swayed by the city of brotherly love. But, since 1850, the great and sudden increase of the population of New York city, had led to the demand there for, and the support of, greater facilities for the study of medicine within the metropolis of the Empire State.

The enormous commerce, the vast wealth, and almost unbounded resources of that American Babylon, is drawing into her vortex all the mental polish and energy, as it does all the material elements of greatness, in the land. Other cities, even vast in size as Boston and Philadelphia, have become but minor entrepôts and workshops for that great mart, and the social tendency of the age is typified in the consolidation of a million and a half of people around the mouth of the Hudson. The merchants of other cities, whose names as firms are hereditary in their native towns, now move their chief men into New York, leaving agencies at home. The book publishing, if carried on elsewhere, looks to that city as its emporium, and there only now are trade sales made; and her old University has awakened to the knocking at her door, and no longer is dry old classics alone imprinted in juvenile minds with the ferula of an Anthon, but liberal endowments attest the desire to afford instruction in physical science, engineering, mining, and chemistry.

In the medical department of Philadelphia College, for the first two or three years, the whole of the teaching appears to have been in the hands of Drs. Morgan and Shippen; the former of whom taught the practice of medicine, and the latter anatomy and surgery.

A chair of *Materia Medica* was added in 1768, to which Dr. Adam Kuhn was elected, and in 1769, Dr. Benjamin Rush was placed in the new chair of chemistry; thus the complete faculty of the first medical school, after four years of life, numbered four teachers. This was considered a full staff for a medical college for many years to come, since many of the more northern schools had only three professors at most, and Dartmouth college carried on its classes for over twelve years through the sole and undivided labors of the famed Dr. Nathan Smith.

At the foundation of the American Medical Association, nearly twenty years ago, the united sense of the profession expressed its belief that a corps of teachers less in number than seven could not effectively instruct youth. For several years some of our schools have not filled up their faculty to this number, and even still a few are delinquent; which is to be regretted. For medical learning has been so enriched and enlarged within the last fifteen years that new branches of knowledge previously unknown to our elder brethren demand time for study, and are knocking at our portals to be represented in our faculties.

Hence, in some of our most prominent schools, the formation of special or auxiliary terms in addition to the regular term, and the aid of an extra corps of teachers chiefly found of men who are devoted to certain special lines of practice; and thus the facilities of instruction are increased until we find, as in some New York schools, ten or twelve professors in the regular term and six or eight in the preliminary term, so that a total of eighteen or twenty is found in the educational corps. This prudent and wise foresight in the New York colleges has subserved its purpose, and justly placed that city as foremost in presenting facilities in medical instruction.

That Philadelphia has yielded precedence to her northern neighbor in the fuller organization of a medical school, which, in its catholic sense, embraces not merely the professional chairs, but also the clinics, the hospitals, museum, &c., and whatever other aid be now needed in medical instruction, is an admitted fact; she has either failed to see the growing wants, or failed in time to meet the demand.

And it is not merely New York which threatens to leave her behind in the race; other schools of lesser note, but more attentive to the wants of the student, have reached their reward in the higher information of their graduates. It is no longer necessary to go to the banks of the Schuylkill to learn minute anatomy, histology, pathology, or high surgery—Philadelphia is almost living on her former reputation, and so long as appointments in her schools are made from family and local influences, or from any other motive than the desire to select the ablest man for her vacant positions, no matter where he may be found, so long must any educational institution expect to find newer rivals distance her in competition, and in time compel her to write Ichabod on her diminished classes.

Subsequent to the formation of the Massachusetts school, each State, as it felt the need—first the Southern and then the Western States—established medical schools in their large cities, until in 1864, the number of schools in the Northern States were twenty-one, and the approximate number of pupils about five thousand.

In the Confederate States no estimate can be made; but few medical schools flourished, and the number of pupils must have been comparatively small; so that the number given above nearly represents the present extent and influence of the medical schools.

As peace and order returns within their borders these States will gradually again reopen their medical colleges, and in a few years the number of medical students will be between seven and eight thousand attending medical classes.

There are other circumstances than the well-directed efforts of men which favor the formation of medical schools, and thus elevate medical art. Society helps the efforts of individuals, and the fortuitous course of events, as we call it, sometimes does for us what we would otherwise fail in accomplishing; and so it was that the tide of affairs did for New England what she herself omitted.

Full of a pride and intolerance of religion, from which charity had been carefully weeded out, she forgot, in all her desire for learning, to train up the good physician as more southern States had done; and it was just a quarter of a century after the establishment of the Philadelphia school, and nearly as long after the opening of the New York school, that Massachusetts, through the instrumentality of the elder Warren, in 1782, commenced the teaching of medicine in the town of Cambridge; and the cause of its origin there has some bearing on our own times. Many of the re-

WASSEL: MA:

turning Massachusetts regiments, at the termination of the Revolutionary war, were encamped near Cambridge before being disbanded. The experience and practical education which service in the field had given to the medical officers in that little army was so apparent that the regimental officers, actuated by the necessity for training more properly medical men, so as to derive advantage from any similar future position, were the first promoters of, and mainly instrumental in forming, the Cambridge Medical School.

Not that war, unless it be of vast magnitude and duration, is peculiarly favorable in its influences on medical schools. Quite the reverse. The Revolutionary war gave such a shock to medical teaching that many of the schools closed, and did not reopen for several years. Medical schools are chiefly private enterprises, and share the fate of private undertakings during war. The present civil war, for the first two years, was a serious shock to many medical colleges, and even in the Northern States terminated the career of some, as it closed up almost every one in the Southern States.

Yet, the Revolutionary war being over, the necessity for more extended and public medical teaching became apparent, and thus out of evil educing good, that war was beneficial in its result to the advance of medical science.

If so small a war as that, waged by a limited and sparse population, really promoted and fostered medicine, what may we not hope from the gigantic enterprise and the unparalleled extent of the military operations which are just now completed?

Can it be that nothing of good will result to us permanently from this war? Consider the demand which this war has made on the practitioners of the art of healing. I will not allude to the first two years of the war, when necessity admitted many poorly educated men into the northern service; but during the latter part of 1863, and subsequently, when rigid examinations were the test of admission into the service, and when that failed to secure efficient officers, another examination removed the incompetent. The United States service was then as well filled by well educated medical officers as any of the armies of Europe.

And what has been the demand? On rough calculations during the same period there were employed three thousand regimental medical officers and five hundred staff officers, both regular and volunteer. At various stationary points additional service was needed, and not less than twenty-five hundred citizen physicians, employed on con-

tract and examined before engagement, have done the same duty with the regimental officers, making a grand total of six thousand medical men.

Will the dispersion of this band throughout the country do nothing in altering and elevating medicine throughout its extent? Will there not be an improved surgery and an improved practice gained thereby?

We may safely assert that there has been no modern war which has not ultimately acted favorably on medical schools, and improved the teachings of science. We have already mentioned the Revolutionary war of 1777. We might point to the value of the Spanish peninsular war as summarized by Guthrie, the campaigns of Napoleon by Larrey, the little war of Holstein by Stromeyer and Essmarch, and the Italian war by Appia and others, to show that every war now adds its quota of new facts and solid conclusions for practice in our art.

It is yet too soon to expect or even to foresee the future advantages of this war on medical progress on this continent; we may reasonably expect it to be very great—commensurate with the duration and opportunities for observation which it has afforded. When the medical history of this war comes to be fully written; when the statistics of the documents in the hands of the Surgical Bureau of the War Department, under the care of Surgeons Otis and Woodward, shall have been published; when ordinary gunshot injuries can be classified by the thousand, and the rarer forms of injury, as of joints, by the hundred, is it too much to say that surgery will become a more exact science, and that modes of operation will no longer be left to the choice of the surgeon, but that those which result in greater safety to life will only be adopted, no matter what may be the peculiar views of the operator?

If these records but supply what in the present hands they can hardly fail to do, we shall have returned the teachings of Europe ten-fold in value, and those who have been sacrificed on the plains of Virginia or the valley of the Mississippi, will thus have contributed some share in furtherance of the universal good of man.

But already are the good seeds of the war springing up in our midst. This territory (the District) may yet, like Massachusetts, reap a valuable harvest in increased knowledge; we have had established in this city an ARMY MEDICAL MUSEUM. Small in its beginning, it has gradually increased, and is still receiving valuable additions, and numbers at present above 6,000 specimens. Unpresuming in its appear-

ance, and established without display or flourish of trumpets, I do not overestimate its value when I say that in no country of Europe is there a collection equal to it as illustrative of military surgery. It is the institution of the metropolis of the nation—a metropolis otherwise singularly destitute of institutions—a collection which will draw the medical attention of transatlantic nations to this country more than ever, and when brought to completion will be the proudest feather in the cap of the chief of the bureau in which it was originated.

In the Army Medical Museum the specimens, surgical and pathological, include all kinds of injury and disease common or peculiar to military life, so arranged that even, without displacement, by casual inspection of the shelves, more may be learned of the results of injuries by missiles, than by listening to courses of unillustrated lectures or the mere study of books.

Here, then, is an institution where the student, advanced in his career, may spend daily a few hours with as much profit as he would by a diligent attendance on hospital practice.

Here is a dead-house with the autopsy ready made, displaying in perfection what the student's individual dissection would have failed to reveal.

As it is open to all, I advise the attendance there of the senior student equally with his attention here and at clinical lectures. Do not complete your studies and leave the District satisfied with the bare knowledge that there is an Army Medical Museum; that it is a collection of dry bones prettily arranged, and nothing more—a thing to look at once, and then it is done. But ask yourselves what is the object of its formation, for whose inspection is it designed? Is it for the public? No! Is it for the seniors of the profession, those who, in the natural course of events, will not again apply its teachings in practice? Is it not for you, *you* who are to take our places hereafter, that this harvest has been gathered? Enter ye in and enjoy the fruits of such labors. Yes, these dry bones will live—they will yet speak with trumpet tongues—not merely of lives sacrificed for principle and duty, but testifying of lives saved by the anxious efforts of our military brethren, whose greatest successes have oftentimes been effected under unfavorable circumstances of time, place and condition, and they will constitute distinguished monuments, alike of love of their profession, and a desire to benefit their fellow-man.

The time is not far distant when this museum will attract

occulist, orthopedist, and a host of other specialities. This subdivision of labor occurring in the surgical portion of medicine has also taken place in the therapeutical. Hence, we find medical men who devote themselves wholly to disease of the chest, or of the skin, of the kidneys of children, of chronic disease, &c.

Much of this division of practice has been facilitated by the mechanical aids which applied physics has given to the profession. The gold-headed cane and the silver buckles of a century ago, whose possessor hesitated to carry a lancet with him lest he would demean his professional dignity, have disappeared, and in their place we have the man who carries with him, or employs, every form of apparatus necessary to cure disease.

The stethoscope broke the opposition down, it was the entering wedge; bitter was the wordy denunciation which in my early days fell from the mouths of the older practitioners upon this innovation. Where does the list now end? For pathological surgery, we have the microscope and the test-tube; for diagnosis, the speculum, both aural, nasal and vaginal, the ophthalmoscope, the laryngoscope, rhinoscope, and the endoscope, and for operation the lithotrite and the ecraseur. These material aids, skilful in practised hands, are leading, nay, driving, medical men into special lines of practice, an occurrence which some believe to be injurious to the honor and unity in the profession, but which from the general progress of science, and division of labor is as inevitable in the medical, as it is in all other professions.

Partly arising out of this division of labor, but more perhaps from increased knowledge of our art, humanity has been benefitted by the progress made since this century commenced. Thus ovariectomy may now be regarded as determined by fixed rules; tenotomy and subcutaneous incisions have rendered many a worthless limb valuable. Plastic surgery has restored many gaps, and hidden many blemishes which formerly would have been life-long in duration; the simplest of dressings and the immovable bandage have superseded poultices and ointments, shortening the healing, and saving much loss of parts; and lastly *anæsthesia* has spread its Lethean charm over suffering and surgery, and in many cases gilded the sunset of that life which it could not prolong.

Of these our country can only claim the last as her addition to the fund of progress, but an addition here greatly beyond that of all the rest together; and it is by its use that the crown has been placed upon American surgery by the

successful ligation of the innominata by Dr. Rogers of New Orleans, an operation which could hardly have been successfully performed without the aid of anæsthetics.

I have adverted to the aid of the microscope in pathology. What changes in our notions of life have occurred since the days when our great grandfathers listened to Haller, Cullen, or even to John Hunter. Nutrition and growth were said to be produced by the flow of blood in the vessels reaching the capillaries of the part, and there the vessel itself, without any intervention, nourishing or repairing the part by its own hidden power and tendencies. Such was the language of this great trio—the typical physiologist, physician, and surgeon, of their day. How is it now?

Ever since physics and chemistry have been called upon to explain some of the phenomena of life, a clearer insight has been obtained, and a more extended prospect opened to the physiologist and the physician. The experiments of Magendie, Flourens, Longet, and others of hardly less note, have overturned the idols of vital forces which were worshipped in the temple of medicine; and if the views of the earlier chemists have been found unfitted or unable to explain the phenomena, nothing has ever been gained by turning a scornful back on the attempt to elucidate the laws of life by a reference to physical processes. Over and over again has the appeal to vital forces ended in the adoption of a wider chemistry and a truer physics. Under the rigid test of physical laws the severely sanguinary antiphlogistic treatment of disease has almost disappeared, and the agitated wave of opinion carried the profession over to the stimulant mode of cure, from which we are just now, I trust, recovering, and the *restorative* treatment, as it is called, demands attention in our journals, and finds adherents in practice. Much of this latter change is due to Prof. Bennett, to whom, perhaps, of living teachers we are more indebted for the intelligent system of healing disease than to any other physician. No matter what views of the origin and structure of the elementary cell may be entertained, we certainly owe the popular adoption and application of its agency in pathology to the labors and teachings of him who so ably made it known to an English reading public.

Having once obtained an insight into cell growth, cell nutrition and cell disease, we can never return to the notion of older physicians of nutrition by vessels and by vessels alone. So long as vascular nutrition and vascular inflammation was believed in, we could hide our ignorance under the mysterious attributes of vitality, but since we now know

that neither of these processes are carried on other than by cells, we are at once forced to admit that it is only by studying the structure and phenomena of cells and of cell contents, we can arrive at a truer view of pathology and disease; and here again we are compelled to invoke a finer physics and a more minute chemistry.

A knowledge of the function of the cell and of the composition and decomposition of the blood go together. As all the healthy secretory charges of the blood are performed by the cell, and as all diseased growth and exudation are also performed by the cell, it is obvious that a large number of what are called blood diseases are really altered action of cells. Leaving out of view all varieties of inflammation, which are but morbid cell actions, we may allude to ætheroma or fatty degeneration as an example of the cell operating on the blood, before the latter had found its way into the interior of the cell; and to hyperinosis or the excessive tendency to form fibrin in the blood, as an example of the change which the cell can effect on the blood material, after the latter has permeated the cell structure; changes which, unless combatted by attention to physical laws, constantly lead to fatal results. The belief in a cell pathology is, then, one of the great advances made in clinical pathology and treatment in our day.

Consequent upon the adoption of true views of cell growth and cell disease, is the adoption of another view of the origin and progress of disease, which is finding extended favor in inquiring minds in the profession, and will yet be adopted as a medical axiom. I refer to the doctrine of *evolution*, a principle in action in social as well as in organic life.

By "evolution," says Spencer Herbert, "we understand the advance from the simple to the complex, from the homogeneous to the heterogeneous, from indeterminate form to determined arrangement, effected by a gradual multiplication of parts, each of which, though resembling its predecessor, yet still carries some of the unlike within it, and thus tends to produce differentiation. This advance from the homogeneous to the heterogeneous has been acknowledged by the astronomer in the disposition of matter in the sidereal world, as well as by the paleontologist and naturalist in the development and appearance of present and former life on the globe."

A change from indistinct characteristics to distinct ones, is the fiat of creation, and is no better marked by the evolution of a planet or satellite out of nebulous obscurity than

it is by the development of the ovum, where, from a single cell, producing like by multiplication, there arises ultimate variety of cell in the tissue and organ of the developed germ. By the differentiation of the cell by the progress of growth from the homogeneous to the heterogeneous, we have the complexity of organ and distinctness of function in the human frame, just as we find in zoology the different genera and species by repeated multiplication ending in innumerable varieties. But it is not merely in the *ovum* that we can study this law of "evolution." It is discernible in the growth of each organ of the body. Take, for example, the human heart. This is at first a mere aggregation of cells, each apparently like the other. By-and-bye the inner cells liquify to form a cavity, while the outer are transformed into walls; when thus sketched out the heart is indefinite by not being lined by limiting membrane, and also by being undistinguishable from the great blood vessel upon which it is developed and of which it is little more than a dilation; in a short time the receiving portion of the cavity becomes distinguishable from the propelling portion, and afterwards there begins to be formed across the ventricle a septum, which however is sometime before it completely shuts off the two halves from each other; while the later formed septum of the auricle remains incomplete during the whole of foetal life.

And so it is of every tissue and organ; it is by multiplication and differentiation of cells that the liver is developed from being a few cells upon the alimentary canal of some animals to be the large mass external to, but communicating with, that tube in the higher species. These changes, thus acting in growth, do not cease at maturity; they go on after birth, and some of them are not completed till after middle life. The changes of size of certain parts of the body show that new cells are multiplied resembling old ones, yet not so like as not to produce well-marked differences at various epochs of growth.

The ears and the nose, and the extremities generally, go through this process of change; and the limbs and the contour of the individual, after a lapse of years, testify to a like alteration, from the action of the law of development of the cell, which determines in every case the formation of the heterogeneous from the homogeneous, from the indefinite to the definite, from the incoherent to the coherent.

This law is not confined to health; it shows itself in disease governing the formation of tumors, morbid growths, and many pathological processes.

Cancer arises from a cell; cancer growth is cell growth; a cancer cell is produced from a healthy cell by multiplication and differentiation, until ultimately an extensive alteration of structure is produced, made up of cells specifically distinct from their original parents.

Again: in inflammation we observe the pus cell to arise either from the areolar or epithelial cell from which it has multiplied and differentiated; by resemblance it shows its parentage, but it has differentiated by the different conditions under which it was developed. So that there are now not recognized, says Virchow, any growth as truly foreign parts, but simple out-growths, hypertrophies and modifications of the natural physiological tissues.

This view and these facts lead us to look upon disease, both medical and surgical, as mere lesions of nutrition, produced by impressions upon cell structures, producing lesions of nutrition in the adjacent parts and leading to alterations in new tissues similar to the original. As thus viewed, disease would spread by assimilation of textures; inflammation passing from cell to cell, and suppuration at one point inducing a like action in its neighborhood. Cancer extending by moulding the adjacent growing elements into its likeness, and by its extension so leavening the constitution as to determine its reproduction in distant parts.

I might dwell long on such topics, but must rest here contented with this brief view of the advance in practice and theory which our profession has made within a few generations; and having brought you along with me to our own day, I must close these remarks at this point with this statement, that much yet remains to make medicine approach to the condition of an exact science, and with the expression of the hope that some of you who listen will show their love to their new profession by constant efforts on their part to dignify it by their lives and advance it by their labors.

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Brown, A. R.....	do.	O'Connor, Jos. T.....	Philadelphia, Penna.
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Fitzgerald, Jos. S.....	Washington, D. C.	Tanner, Jno. B.....	Washington, D. C.
French, R. D. DeG.....	New York.	Tree, C. M.....	do.
French, G. A.....	Manchester, N. H.	Trott, T. H.....	Michigan.
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Hale, Wm.....	Washington, D. C.	Walsh, Frank S.....	Cortland, N. Y.
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Howe, Frank S.....	Mass.	Whitcar, W. W.....	do.
Huntoon, A. J.....	Plymouth, N. H.	Wise, Thomas W.....	do.
Jamison, A. B.....	Pennsylvania.	Wolf, J. L.....	do.
Jones, E. S.....	do.		

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